



Transcript: Day 3 - September 11, 2020

CLOSING REMARKS – PETER MARTINEZ, EXECUTIVE DIRECTOR SWF

PETER MARTINEZ: Greetings, everyone. My name is Peter Martinez, I'm the Executive Director of Secure World Foundation and it's my great pleasure to offer some closing remarks for this second Secure World Summit for Space Sustainability.

When we were putting the conference together, our intention was to provoke discussion on current issues across a wide spectrum of space sustainability topics. We hope you enjoyed the discussions in your own domain of expertise and learned a few interesting things in other areas. I certainly did.

We had over 700 participants signed up for this event, calling in from dozens of countries, yet none of us was seated next to each other. As Mike Simpson said on Monday, this was the epitome, um, the epitome of social distancing. The breadth of participation not just in a geographical sense but also in the sense of the different disciplines from government, industry, the military, academia and civil society organizations shows the growing recognition in all these sectors that we are on the cusp of an exciting new era of space activities, the kind that always seemed to be 10 to 15 years away in the future. And somehow that horizon always kept on being pushed forward.

But that long awaited future is finally palpable. Despite covid-19, we've seen this year a number of major developments in the space arena. We've seen commercial sector playing a key role in these developments. We saw the first commercial crew transportation to the ISS, for example. We saw the first commercial life extension servicing in GEO, and earlier this week we heard about developments in commercial SSA capabilities.

And of course, yesterday we heard the NASA administrator announcing an RFP for commercial actors to collect and sell lunar regoliths to NASA in place on the moon. What an amazing development! This will surely stimulate technological innovation and competition in the commercial sector.

But equally importantly, it will also provide an impulse for a much needed pragmatic discussion on how to move forward from the academic discussions towards regulatory certainty on the subject of extracting and training space resources. We all want to see a prosperous and vibrant space sector contributing to the peaceful development and security on Earth. And I mean security in all its forms, be it human environmental, et cetera.

Space has become part of the plumbing of modern life, silently delivering untold benefits to billions of people on Earth on a daily basis. The public has come to take these benefits largely for granted, and

basically just assumes that they'll continue to be there tomorrow and the day after. Covid-19 has shown us just how susceptible our highly interconnected societies are to disruptions.

In the space community, we're aware of how fragile the space environment is, how vulnerable, how vulnerable space systems really are, and the importance of refraining from actions and behaviors that will push us over a cliff into the abyss of an unusable space environment. And this is what our space summit for space sustainability is all about. How to balance the benefits of space for our generation with the needs of future generations that will follow us and who will rely on those benefits even more.

And how to ensure that space will continue to be a peaceful and stable domain under the rule of law. We heard about regulatory developments that balance the need for regulation with the need for whole of government approaches to space governance that is agile and able to respond to technological and commercial developments. One of the challenges facing regulators is how to future proof regulations in the context of a very dynamic and evolving space arena.

The volume and diversity of commercial space activities seem to be evolving and expanding faster than the capacity of regulators to keep up with their Article VI obligations. This presents challenges to many countries. One such challenge is what we can call chain of custody issues, which arise in multinational space activities, involving actors across multiple jurisdictions. I think we need to think of ways to improve regulator to regulator dialogue, and the sharing of experiences in Article VI implementation at national level, and also in things like implementation of software instruments such as the UN COPUOS long term sustainability guidelines.

We have seen how, with the greater reliance on space applications, comes the need to secure the domain for civil, commercial, military space activities and to deter threats in that domain. We heard from very high ranking military officers who are leading the efforts of their nations to develop doctrines for military space operations and their national capabilities to protect national, civil, and military assets in space, to ensure freedom of passage in domain, and to detect, characterize and respond to hostile or irresponsible actions in space. A common thread running through the military space panel was that by making space capabilities more resilient, it could actually help deter a war in space and also potentially also on Earth.

We also heard in the last panel about arms control as a possible tool to reduce the likelihood of conflict in space. We heard how sustainability concerns are an integral part of thinking among those engaged in the planning, development, and execution of activities on the moon and in cislunar space. This finds expression in principles such as reusability and repurposing of mission elements, but also in a deliberate effort to integrate sustainability and basic principles of the Outer Space Treaty into bilateral and multilateral discussions on space exploration, through initiatives such as the Artemis Accords that leverage exploration as a vehicle to promote responsible behaviors in space.

One cannot speak of sustainable space exploration without touching the subject of space resource utilization, which was the subject of a very interesting panel discussion yesterday, which was given additional impetus by Administrator Bridenstine's announcement yesterday. If private sector entities become involved in commercial space activities, a key question will be how to provide authorization and continuing oversight of such activities in accordance with Article VI of the Outer Space Treaty. This is an

issue that will also require multilateral dialogue, and perhaps this announcement will help to spur such dialogue.

Not having such a dialogue might result in conflicting national regulatory regimes that would limit the investment in and market for space resources and could ultimately lead to legal challenges and severely limit space resource developments, activities in the future. A common thread running through several panels was a perceived need for norms of responsible behavior in the civil and military spheres.

What kind of norms do we need? How do we know which norms will be the best? Is it possible that certain norms may be good for safety in the short term, but not good for sustainability of the space environment in the long term? How do we choose good norms that are effective in addressing key issues when it comes to unproven new space applications? How do we manage risks while not stifling innovation? These are still questions needing further discussion.

We were delighted to see the strong engagement of the commercial space community in the summit. This shows that the commercial actors have a strong interest in promoting space sustainability.

Indeed, our list of sponsors for the summit attests to this. The growing use of space by commercial actors created demand for more and better quality SSA data. The commercial sector is developing impressive new SSA capabilities that can help to improve transparency and our awareness of space objects and events. In the panel on Responsible Investment in Space, we heard ideas for possible ways to encourage, incentivize, and reward good behaviors.

We also heard of the need to establish mechanisms to incentivize and support emerging space actors--many of whom are completely new to the space domain--to become responsible actors, but also not to shy away from exposing and calling out bad behaviors where such behaviors are deliberate.

This morning we had an excellent panel discussion on the challenges of spectrum governance going forward. One of the key takeaways for me from that discussion was for the need for, from the long term sustainability perspective, there is a need for a coordinated long term vision for spectrum management at the national and international levels. These are just some of my key takeaways from a very intensive set of discussions over the past three days.

In closing, I want to thank all of our sponsors for making this event possible and for demonstrating your commitment to space sustainability. If you have not yet had a chance to view the electronic displays provided by our sponsors on the summit website, we encourage you to do so. I'd also like to thank all of our invited keynote speakers for their very stimulating presentations as well as the pre-summit spotlight speakers, for their recorded talks. Also want to thank all of our panelists for their engagement in the various panel discussions, and thank you to you, the participants, for your engagement with the presenters and panelists.

If we were at an in person event, I would invite you all to give them a big round of applause. And perhaps you can indicate your appreciation virtually to all the presenters in the chat feature. Lastly, I want to thank the Secure World staff, starting with summit chair Krystal Wilson, for her outstanding job in the organization of this summit. Anyone who has planned an international conference knows how much work it is.

But when the goalposts keep shifting and the rules of the game are uncertain or even completely unknown, that makes it extra hard. Krystal, you did an amazing job, thank you very, very much. Krystal was also supported by the program managers at Secure World and the operations team behind the scenes, and I've asked Josh to pull up a slide to show the Secure World team. This is an amazing team that has organized this event, and I have the pleasure and privilege to work with them every day.

Thank you, one and all. You folks did an absolutely amazing job. And so from all of us at Secure World, thank you for attending the second Secure World Foundation Summit for Space Sustainability. We hope you have enjoyed participating in this event as much as we have organized--enjoyed organizing and implementing it for you.

If you have most any portion of the event, the recordings of the main conference will be made available in the coming weeks, but not the recordings for the interactive sessions as those were not recorded. We will also do a participation survey next week. We would appreciate your feedback for next year's event so that we can continue to improve it and keep it highly topical and relevant.

Notice that we call it the Summit for Space Sustainability, meaning that we want these summits to be action oriented. The discussions of the past few days will certainly help to inform SWF's program agenda going forward. We hope you also gain some actionable knowledge for your own organizations. And we look forward to welcoming you all to the next summit where we will be able to review the progress made and discuss further joint efforts to advance space sustainability.

Thank you, everyone. Be safe and farewell.